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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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06/25/2003

Tammy Burd Mehta

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CALIPER LIFE SCIENCES, INC.
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EXAMINER

GROSS, CHRISTOPHER M

ART UNIT

PAPER NUMBER

1639

MAIL DATE

DELIVERY MODE

04/03/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/606,201	Applicant(s) BURD MEHTA ET AL.	
	Examiner CHRISTOPHER M. GROSS	Art Unit 1639	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 4-6 and 12-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7-11 and 17-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Responsive to communications entered 4/9/2007. Claims 1-20 are pending. Claims 4-6, 12-16 stand withdrawn. Claims 1-3,7-11,17-20 are under consideration.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Priority

This application was filed on 6/25/2003.

This application is a CON of 09/510,626 02/22/2000 PAT 6,632,655

which claims benefit of 60/121,223 02/23/1999

and claims benefit of 60/127,825 04/05/1999

and claims benefit of 60/128,643 04/09/1999

Maintained Claim Rejection(s) - 35 USC § 102

Claims 1-3, 7, 8-11, and 17-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Parce et al. (US Patent 5,942,443; *filing date of 06/28/1996*)

Please note that in this office action, claim 8 is newly rejected as it was determined, after further consideration, that Parce et al teach the limitations set forth in said claim 8 (see below).

The applied reference has common inventors (i.e. John Wallace Parce, Anne R. Kopf-Sill, and Luc J. Bousse) with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not

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claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

For **claims 1 and 17**, Parce et al. teach microfluidic devices and methods for performing high-throughput screening assays (see e.g. Abstract; col. 2, lines 36-43; col. 3, lines 3-51). Figures 3 and 4 illustrate one type of microfluidic device wherein the comprises a substrate (ref. # 302), a series of parallel reaction channels (ref. # 312-324)(refers to instant claimed narrow channel), sample injection channel (ref. #304) (refers to instant claimed broad channel), seeding channel (ref. #306), collection channel (ref. #308), and bead resting wells (ref. #326-338)(see e.g. col. 16, line 1 thru col. 18, line 65; figs. 3 and 4). As shown in figure 3, the parallel reaction channel is within the sample injection channel, and is “deeper” than the sample injection channel, and in addition the bead flow into the parallel reaction channel.

For **claims 2, 3, and 7**, Parce et al. disclose that the bead comprises immobilized test compound that include nucleic acids (see e.g. col. 6, line 60 thru col. 7, line 19; col. 16, line 47-52).

For **claims 8-11**, Parce et al. teach that the dimension of the channels ranges from 1 μ m to 500 μ m (see e.g. col. 3, lines 8-10; col. 8, lines 43-57).

For **claims 17-20**, Parce et al. teach that the device also comprises a fluid direction means such as a pump or electrodes (refers to instant claimed fluid direction system of claim 17) and a computer system (see e.g. col. 12, lines 11-44; col. 21, lines 7-11).

Therefore, the device of Parce et al. anticipates the presently claimed apparatus.

Response to Arguments

Applicant argues not all elements are taught.

Applicant's arguments have been fully considered but they are not deemed persuasive for the following reasons.

Applicant argues see p 5 second paragraph through p 6 first full paragraph (4/9/2007) that Parce et al do not teach a "a broad channel with a narrow channel **within** the broad channel, wherein the narrow channel is deeper than the broad channel," as set forth in claim 1. Emphasis added. Applicant further provides evidence from Mirriam-Webster's Online Dictionary to indicate a synonyms for the term "within" include "inside [of]" or "enclosed [by]." In this regard, applicant alleges that figures 3 and 4 of Parce et al teach the narrow, deeper reaction chambers (elements 312-324) and/or the bead resting wells (elements 326-338) intersect with, rather than are within, or are inside of, the broad sample injection channel (element 304).

Solely to rebut applicant's argument, evidence provided by the Mirriam-Webster's Online Dictionary further indicates that intersect means to overlap or to share a common area. In this regard, by overlapping, an intersection includes a portion within, or inside of.

The examiner submits, at the intersection of the narrow deeper bead resting wells and/or the reaction chambers with the sample injection channel shown in figures 3 and 4 of Parce et al comprises an overlap and at said overlap,

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the narrow deeper bead resting wells and/or the reaction chambers resides within the broad sample injection channel.

Alternatively, in so far as sharing a common area is concerned, it is noted that according to figure 4 and paragraph 0101 of the present published application, that wells (elements 4005-4025) are in *fluid communication* via the single depth wide channel (element 4060-4070) and double-depth channels (elements 4045-4050). Parce in the paragraph bridging columns 16 and 17 and figure 4B teach an embodiment which similarly requires *fluid communication* across each of said bead resting wells so that, for instance, acid may cleave a test compound from each resting bead in parallel (i.e. simultaneously). The examiner submits that parallel cleavage necessitates a shared common area, into which said acid can flow.

Applicant mentions confusion concerning the seeding channel (element 306) and the collection channel (element 308) mentioned in the last office action. To clarify, said channels were included for completeness, as it is noted that claim 1 is drawn to a microfluidic device *comprising*, and is thus open to additional elements.

Claims 1-3, 7, 8-11, and 17-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Parce et al. (US Patent 6,429,025 B1; *filing date of 03/19/1998*).

Please note that in this office action, claim 8 is newly rejected as it was determined, after further consideration, that Parce et al teach the limitations set forth in said claim 8 (see below).

The applied reference has common inventors (i.e. John Wallace Parce, Anne R. Kopf-Sill, and Luc J. Bousse) with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

For **claims 1 and 17**, Parce et al. teach microfluidic devices and methods for performing high-throughput screening assays (see e.g. Abstract; col. 3, line 19 thru col. 4, line 15; col. 10, lines 15-34). Figures 3 and 4 illustrate one type of microfluidic device wherein the comprises a substrate (ref. # 302), a series of parallel reaction channels (ref. # 312-324)(refers to instant claimed narrow channel), sample injection channel (ref. #304) (refers to instant claimed broad channel), seeding channel (ref. #306), collection channel (ref. #308), and bead resting wells (ref. #326-338)(see e.g. col. 25, line 17 thru col. 28, line 16; figs. 3 and 4). As shown in figure 3, the parallel reaction channel is within the sample injection channel, and is "deeper" than the sample injection channel, and in addition the bead flow into the parallel reaction channel.

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For **claims 2, 3, and 7**, Parce et al. disclose that the bead comprises immobilized test compound that include nucleic acids (see e.g. col. 9, lines 12-43; col. 25, line 65 thru col. 26, line 3).

For **claims 8-11**, Parce et al. teach that the dimension of the channels ranges from 1 μm to 500 μm (see e.g. col. 3, lines 39-41; col. 16, lines 6-20).

For **claims 17-20**, Parce et al. teach that the device also comprises a fluid direction means such as a pump or electrodes (refers to instant claimed fluid direction system of claim 17) and a computer system (see e.g. col. 19, lines 48 thru col. 20, line 14; col. 31, lines 14-22).

Therefore, the device of Parce et al. anticipates the presently claimed apparatus.

No Arguments Presented

Applicant does not offer arguments regarding the above anticipation rejection, therefore the rejection is hereby maintained.

Maintained Claim Rejection(s) - 35 USC § 112

Claims 1-3, 7-11, and 17-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

No Arguments Presented

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Applicant does not offer arguments regarding the above "new matter" rejection, therefore the rejection is hereby maintained.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher M. Gross whose telephone number is (571)272-4446. The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. Douglas Schultz can be reached on 571 272-0763. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Christopher M Gross
Examiner
Art Unit 1639

cg

/Mark L. Shibuya, Ph.D./
Primary Examiner, Art Unit 1639